AMENDED CLAIMS – SUBMITTED EXCLUSIVELY TO INCREASE THE CLARITY OF THE CLAIMS

036 What is claimed is:

1. (Currently amended) An Automatic Furnace that increases efficiency and decreases pollution that includes an electronic control unit (ECU) having memory, a multiburner furnace with at least two burners, a flue, a circulation time, a current circulation time, a circulation time delay from said burner to said flue, a flue parameter level, a flue parameter sensor, a reaction time marking a constant combustion rate, an oxidant delivery system controlled by the said ECU, a combustant at a said burner, the oxidant of the said oxidant delivery system controlling the said reaction time and the said flue parameter level in a base state with constant oxidant dosage and otherwise, the said Automatic Furnace having a sequential plurality of said oxidant and said flue parameter doses with values ranging from the smallest value to the largest value, the method comprising:

delivering the largest said oxidant dose to the said burner and thereby the largest said flue parameter dose to the said flue, while repeatedly sequencing through the said plurality of sequential said flue parameter doses beginning with the smallest dose and proceeding to the said adjacent dose in the said sequence after a predetermined time interval has elapsed until the said flue parameter level of the said Automatic Furnace attains the desired said flue parameter level at which point a corresponding said oxidant dosage and consequential said flue parameter level are selected from the said plurality of said sequential oxidant and said sequential flue parameter doses.

delivering the said selected oxidant and the said consequential flue parameter dose so as to maintain the said flue parameter level in its desired range.

2. (Currently amended) The method of claim 1 wherein CO is the said flue parameter.

3. (Currently amended) The method of Claim 1 wherein the said current circulation time is determined by:

means for storing a predetermined number of said base state values in said memory; and

means for determining a predetermined sequence of said base state levels.

4. (Currently amended) The method of claim 1 wherein the said reaction time is determined by logic flow charts.

5. (Currently amended) The method of Claim 1 wherein temperature is the said flue parameter.

6. (Currently amended) The method of Claim 1 wherein NO is the said flue parameter.

7. (Currently amended) The method of Claim 1 wherein compressed gaseous air is the said oxidant.

8. (Currently amended) The method of Claim 1 wherein compressed oxygen gas is the said oxidant.

9. (Currently amended) The method of Claim 1 wherein the said combustant is solid, liquid, or gas.

10. (Currently amended) The method of Claim 1 wherein the said combustant is a hydrocarbon.

11. (Currently amended) An Automatic Furnace that increases efficiency and decreases pollution that includes an electronic control unit (ECU) having memory, a multiburner furnace with at least two burners, a flue, a circulation time, a current circulation time, a circulation time delay from burner to flue, a flue parameter level, a flue parameter sensor, a reaction time marking a maximum combustion rate, an oxidant delivery system controlled by the said ECU, a combustant at a said burner, the oxidant of the said oxidant delivery system controlling the said reaction time and the said flue parameter level in a base state with constant oxidant dosage and otherwise, the said Automatic Furnace having a sequential plurality

of said oxidant and said flue parameter doses with values ranging from the smallest value to the largest value, the method comprising:

delivering the said largest oxidant dose to the said burner and thereby the largest said flue parameter dose to the said flue, while repeatedly sequencing through the plurality of said oxidant doses beginning with the smallest dose and proceeding to a said adjacent dose in the sequence after a predetermined time interval has elapsed until the said flue parameter level of the said Automatic Furnace attains the desired said flue parameter level at which point a corresponding said oxidant dosage and consequential said flue parameter level are selected from the said plurality of said sequential oxidant and said sequential flue parameter doses.

delivering the said selected oxidant and the said flue parameter dose so as to maintain the said flue parameter level in its desired range.

12. (Currently amended) The method of claim 11 wherein CO is the said flue parameter.

13. (Currently amended) The method of Claim 11 wherein the said current circulation time is determined by:

means for storing a predetermined number of saidbase state values in said memory; and

means for determining a said predetermined sequence of base state levels.

14. (Currently amended) The method of claim 11 wherein the said reaction time is determined by logic flow charts.

15. (Currently amended) The method of Claim 11 wherein temperature is the said flue parameter.

16. (Currently amended) The method of Claim 11 wherein NO is the said flue parameter.

17. (Currently amended) The method of Claim 11 wherein compressed gaseous air is the said oxidant.

18. (Currently amended) The method of Claim 11 wherein compressed oxygen gas is the said oxidant.

19. (Currently amended) The method of Claim 11 wherein the said combustant is solid, liquid, or gas.

20. (Currently amended) The method of Claim 11 wherein the said combustant is a hydrocarbon.